

CANADIAN GEOGRAPHICAL JOURNAL

DEC 15 1949

PERIODICAL ROOM
GENERAL LIBRARY
UNIV. OF MICH.

DECEMBER 1949



Inside an Igloo

Richard Harrington

The seal-oil lamp or *kuteli* is the only source of heat inside most igloos and it is used for cooking and making tea. The flame can be seen along the edge of the dish as the young nursemaid tends the wick with a stick. The snow walls of this igloo have been partly covered with wood from packing cases, one of which supports the *kuteli*; above it wire hooks for the cooking pots are suspended from a rack. The hood of the Eskimo girl's *artiggi* has been thrown back so that the baby can look around. The plaid shawl bought at the trading post is typical indoor wear. This Eskimo home is south of Port Harrison on the east shore of Hudson Bay.



THE CANADIAN GEOGRAPHICAL SOCIETY OTTAWA, CANADA

»»»»

HONORARY PATRON

His Excellency Field-Marshal the Right Honourable Viscount Alexander of Tunis,
K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., LL.D., M.C., A.D.C.

HONORARY PRESIDENTS

CHARLES CAMSELL, C.M.G., LL.D., B.A. and J. B. TYRRELL, M.A., LL.D., F.G.S.

BOARD OF DIRECTORS

CHARLES G. COWAN, President

Hon. W. A. BUCHANAN, Vice-President

Gen. A. G. L. McNAUGHTON, Vice-President

R. C. WALLACE, Vice-President

Hon. A. E. ARSENAULT, Charlottetown, P.E.I.

MARIUS BARBEAU, Ottawa

ARTHUR BEAUCHESNE, Ottawa

G. GORDON BELL, Ottawa

Col. A. F. DUGUID, Ottawa

Maj.-Gen. W. W. FOSTER, Victoria, B.C.

AUGUSTIN FRIGON, General Manager, Canadian
Broadcasting Corporation, Ottawa

K. A. GREENE, Ottawa

H. L. KEENLEYSIDE, Deputy Minister, Department
of Mines and Resources, Ottawa

GILBERT LaBINE, Toronto, Ont.

F. C. C. LYNCH, Ottawa

J. A. WILSON, Vice-President

K. G. CHIPMAN, Honorary Treasurer

E. S. MARTINDALE, Honorary Secretary

B. R. MacKAY, Department of Mines and Resources,
Ottawa

C. J. MACKENZIE, President of National Research
Council, Ottawa

M. W. MACKENZIE, Deputy Minister, Department of
Trade and Commerce, Ottawa

T. H. MANNING, Ottawa

Lt.-Col. L. T. MARTIN, Ottawa

Lt.-Col. SIDNEY C. OLAND, Halifax, N.S.

F. H. PETERS, Aylmer, Quebec

E. J. TARR, Winnipeg, Man.

GRIFFITH TAYLOR, University of Toronto, Toronto, Ont.

Hon. T. VIEN, Montreal, Quebec

J. C. WEBSTER, Shédiac, N.B.

J. T. WILSON, University of Toronto, Toronto, Ont.

Honorary Counsel: H. ALDOUS AYLEN, K.C.

Executive-Secretary and Editor of Publications

GORDON M. DALLYN

Editorial Committee

R. J. C. STEAD, Ottawa, Chairman

F. J. ALCOCK, Ottawa

G. C. ANDREW, Vancouver

Hon. A. E. ARSENAULT,
Charlottetown

GEORGE W. BROWN, Toronto

D. W. BUCHANAN, Ottawa

Hon. W. A. BUCHANAN,
Lethbridge

G. M. DALLYN, Ottawa

W. EGGLESTON, Ottawa

D. C. HARVEY, Halifax

H. A. INNIS, Toronto

GEORGE H. T. KIMBLE, Montreal

M. E. LaZERTE, Edmonton

F. C. C. LYNCH, Ottawa

R. O. MacFARLANE,
Winnipeg

MALVINA BOLUS, Secretary

I. S. McARTHUR, Ottawa

OLIVER MASTER, Ottawa

S. F. RAE, London, England

J. E. ROBBINS, Ottawa

H. L. TRUEMAN, Ottawa

J. C. WEBSTER, Shédiac

M. Y. WILLIAMS, Vancouver

Auditors: Davis, Bishop & Company, Chartered Accountants

»»»»

The Society's ambition is to make itself a real force in advancing geographical knowledge, and in disseminating information on the geography, resources and people of Canada. In short, its aim is to make Canada better known to Canadians and to the rest of the world.

As one of its major activities in carrying out its purpose, the Society publishes a monthly magazine, the Canadian Geographical Journal, which is devoted to every phase of geography—historical, physical and economic—of Canada, of the British Commonwealth and of the other parts of the world in which Canada has special interest. It is the intention to publish articles in this magazine that

will be popular in character, easily read, well illustrated and educational to the young, as well as informative to the adult.

The Canadian Geographical Journal will be sent to each member of the Society in good standing. Membership in the Society is open to any one interested in geographical matters. The annual fee for membership is four dollars (Canadian currency).

The Society has no political or other sectional associations, and is responsible only to its members. All money received is used in producing the Canadian Geographical Journal and in carrying on such other activities for the advancement of geographical knowledge as funds of the Society may permit.



It's like the **ALUMINUM business**

PLANTS — all kinds of plants — need supplies to thrive on. This is true of *plants* in the garden, and true of *plants* which make articles of aluminum.

Vegetable plants draw their supplies from the soil and the air. The 1000 and more aluminum manufacturing plants across Canada draw theirs from us.

And just as different garden plants produce different leaves, flowers, roots and fruits, so these manufacturing plants shape our aluminum into a variety of useful forms — kitchen ware, garden tools, furniture, bodies for aeroplanes and trucks . . . all sorts of things which people want because they are light and economical.

We and these independent manufacturers make a team. They draw on us not only for aluminum but also for the technical services of our laboratories. And because we produce, here in Canada, a quarter of the world's aluminum, they are able to buy this metal at lower prices than anyone else anywhere.



ALUMINUM COMPANY OF CANADA, LTD

Producers and Processors of Aluminum for Canadian Industry and World Markets

TORONTO • WINDSOR • MONTREAL • QUEBEC • VANCOUVE



"March" by Tom Thomson

National Gallery of Canada

CANADIAN GEOGRAPHICAL JOURNAL

Published monthly by
THE CANADIAN GEOGRAPHICAL SOCIETY
36 Elgin Street, Ottawa

Editor - GORDON M. DALLYN - Assistant Editor - MALVINA BOLUS

This magazine is dedicated to the interpretation, in authentic and popular form, with extensive illustrations, of geography in its widest sense, first of Canada, then of the rest of the British Commonwealth and other parts of the world in which Canada has special interest.

~~~~~

The articles in this Journal are indexed in the *Canadian Index* which may be found in any public library.

The British standard of spelling is adopted substantially as used by the Dominion Government and taught in most Canadian schools, the precise authority being the Oxford Dictionary as edited in 1936.

Address all communications regarding change of address, non-delivery of Journal, etc., to the publication office, 1,000 St. Antoine St., Montreal, Canada, giving old and new address. On all new memberships, the expiry date will be printed on wrapper containing starting number. This will constitute a receipt for subscription.

Membership dues of The Canadian Geographical Society, which include postpaid delivery of the Journal, are \$4.00 per year in any country, payable at par in Ottawa.

Member Audit Bureau of Circulations

#### SPECIAL REPRESENTATIVES:

Ontario and Quebec: F. A. DALLYN  
Toronto office — 21 King Street, E.  
(Tel. EL. 2863)

Montreal office — 1,000 St. Antoine  
Street, (Tel. UN. 5285)

Europe: S/L W. H. CORKILL, M. B. E.  
The Mead, West Dumpton Lane, Rams-  
gate, Kent, England.

## CONTENTS

DECEMBER, 1949 • VOLUME XXXIX • NUMBER 6

Page

|                                                        |     |
|--------------------------------------------------------|-----|
| MAKING BOOKS IN CHINA . . . . .                        | 232 |
| by HEDDA M. MORRISON                                   |     |
| A NEW BRUNSWICK MEMORIAL . . . . .                     | 244 |
| by ROBERT J. C. STEAD                                  |     |
| SOME OXFORD COLLEGES . . . . .                         | 250 |
| by EDGAR W. PITTS                                      |     |
| THE PRACTICAL IGLOO . . . . .                          | 258 |
| by BRADFORD WASHBURN                                   |     |
| CANADIAN GEOGRAPHY AND<br>CANADIAN PAINTING . . . . .  | 262 |
| by JOHN K. B. ROBERTSON                                |     |
| TURTLE MOSAIC . . . . .                                | 274 |
| by DOUGLAS LEECHMAN                                    |     |
| CANADIAN GEOGRAPHICAL JOURNAL<br>INDEX, 1949 . . . . . | IX  |
| EDITOR'S NOTE-BOOK . . . . .                           | XI  |
| AMONGST THE NEW BOOKS . . . . .                        | XI  |

+

CONTENTS OF THIS JOURNAL ARE COPYRIGHT

AUTHORIZED AS SECOND CLASS MAIL, POST OFFICE DEPARTMENT, OTTAWA

PRINTED IN CANADA

~~~~~

Making Books in China

Notes and photographs by HEDDA M. MORRISON

THE HAN DYNASTY, 206 B.C. to A.D. 220, was one of the most important in Chinese history and not least notable for the revolutionary invention of paper which about this time began to be used as a general medium for recording the written language. The earliest known writing was scratched on the bones of large animals or the shells of tortoises. Later, with the introduction of ink and the writing brush, long narrow slips of bamboo or wood were used and these could be formed into volumes by stringing them together with leather thongs. It was a very cumbersome and unwieldy process and a small library might well comprise several cartloads. Paper and to a lesser extent silk were the first really successful and convenient materials discovered. At first silk was extensively used but it was found that

paper was cheaper, stronger, more easily repaired and less affected by insect pests and, in general, had a much longer life.

In China crafts and processes are often carried on exactly as they were hundreds of years ago, frequently producing results of great beauty and high quality. It is still possible to see books and paper and wood blocks for printing being made and used in the same way as they were in A.D. 948.

When paper and silk first came to be used for purposes of writing, they were generally arranged in long sheets rolled around a circular piece of wood in the manner of a scroll. Such scrolls were very much more convenient than pieces of wood but were still by no means ideal for ready reference. The Chinese being a resourceful people, it was not long before someone noticed that if



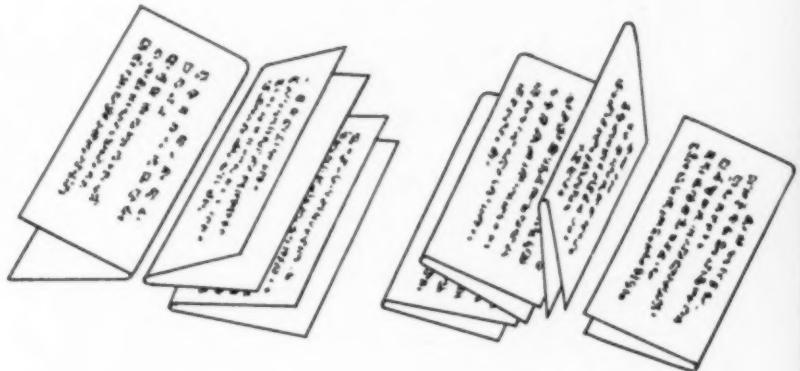
Three k
leaves, c
forth. M
(below)
printed
together
pages o
blank pa
(below)
case the
at the cu
printing

the
wa
as
an
ne
The
stil
pri
wr
tha
fol

the
fro
A.I
mo
pa
pre
wr
pr
the
rub
car
car
on
car
pos
and
tak
rep



Three kinds of books: Left, whirlwind leaves, one long strip folded back and forth. Middle, butterfly binding showing (below) the leaves before sewing; sheets, printed on one side, are folded and sewn together at the folded edge, so that two pages of printing are followed by two blank pages. Right, modern binding with (below) the leaves before sewing; in this case the folded sheets are sewn together at the cut edges, so that every page has printing but the pages are double.



the length of paper or silk was folded backwards and forwards on the same principle as a fan, a flat book could be produced and any page could be reached without the necessity of stretching out the whole length. These were called whirlwind leaves and are still used to some extent, particularly for the printing of Buddhist Sutras, or religious writings. This system has the disadvantage that the books tend to wear out along the folds which must sometimes be strengthened.

The next development probably came in at the same time as the introduction of printing from wood blocks in the T'ang Dynasty, A.D. 618 to 916, which was perhaps even more revolutionary than the invention of paper itself. The Chinese had some time previously started to make use of seals for writing their signatures and this is still the practice today. In addition to the use of seals the Chinese had discovered how to take rubbings of religious, particularly Buddhist, carvings on stone, that is, to ink over a carving and then to press a sheet of paper on to it to receive an impression of the carving. It was soon found that it was also possible to carve on blocks of wood in reverse and to use them, by the same process as taking a rubbing, to produce a positive reproduction. The process was perfected

in the T'ang Dynasty and may still be seen in use today.

In order to make the best possible use of wood blocks, it was desirable to make relatively small sheets of paper which were easy to handle and to devise some means of joining them together. The first method was the so-called "butterfly" binding. The printing, of course, could only be done on one side of the paper. Small individual sheets were printed off and then folded to bring the printed halves face to face. Adjacent sheets were sewn together at the folded edge. These books resembled modern books in form but each two printed pages facing together were followed by two blank pages facing together.

The final modification was to print small sheets as for butterfly binding but to fold the individual sheets so that the blank sides came together and then to sew the cut edges together. This produced the book in its most modern form. In appearance it resembles a western one but each page is double. The paper is very thin, being made from rice straw, and each book is made up of a number of volumes bound in soft paper and enclosed in a cloth covered board folder. The book begins where a western book would end and is read back to what westerners would consider the front page.

MAKING THE PAPER

Left and below:—Paper is still manufactured by traditional methods. For fine paper straw and hemp are used but for coarse paper the Chinese now find it more economical to use waste paper; the method of treatment exactly the same. The boy on the left is scouring the streets of Peiping for any piece of waste paper he can find. He is armed with a pointed stick with which to pick the paper off the ground and a basket over his shoulder to put it in. The pittance he earns is enough for a meagre livelihood. The waste paper brought to the factory is placed in a grinder which is a simple mill very similar to that used for grinding corn. A donkey turns the grinding block which revolves around a central axis and reduces the raw material which is kept damp, to the consistency of pulp.

Right: top and bottom:—The pulp is placed in a tank where it is vigorously stirred and kept in solution. The paper maker stands behind the tank and works with two articles of equipment only. Immediately in front of him is a wooden framework which rests on blocks just above the level of the pulp. The other piece of equipment is a very fine, flexible bamboo grid. This is dipped into the solution and removed with particles of pulp adhering to it. Placed on top of the wooden framework the water drains away and the pulp can be tipped off in the form of separate sheets of paper. This is achieved by leaving in the fine grid two strips which are too coarse to pick up the pulp. Behind the worker can be seen the piles of prepared paper. The paper makers work in cold, unheated sheds and it is bitter work during the winter months.







THE PRINTING

The sheets of damp paper are taken outside, stripped off the pile one by one and pasted up on a sunny wall to dry. Chinese paper made in this way, whether coarse or fine, can always be recognized by the impression of the bamboo ribs of the fine grid.

Below is the printing room of a large Chinese temple in Peiping that produces Buddhist religious volumes or Sutras. On the shelves are stacked the printing blocks, all carefully labelled. Some of them are said to be 500 years old and they are still serviceable. In the foreground a priest is preparing a new edition.



taken
one by
y wall
in this
, can
the im-
of the

large
t pro-
lumes
are
, all
m are
they
fore-
new

The workman has in front of him the block of a drawing, which he is engaged in inking. He then takes the paper from under his right hand and, placing it on top of the block, brushes it with a horsehair brush. The lines are kept straight by eye only and it says much for the accuracy of the work that the printing is seldom crooked.

Brushing the paper on top of the inked block. The horsehair brush is bound together with leather. The brushing is done gently but firmly and with surprising rapidity considering the thin and fragile nature of the paper.





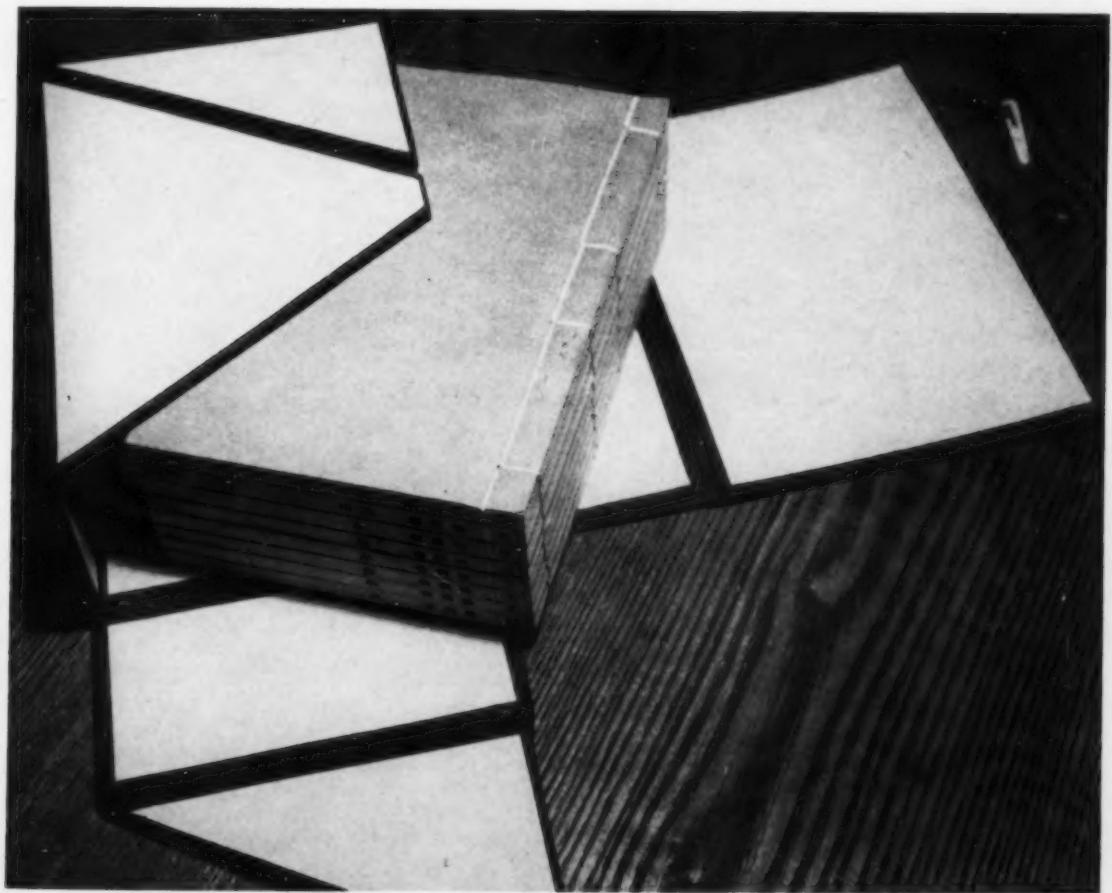
THE BINDING

Assembling the sheets for binding. The man on the left in the top picture is attaching labels to the unbound volumes with rice paste.

(Left) Holes are punched through the sheets to be bound with a simple brass instrument. There are usually four holes and the book is bound with thread through these, round the back, and once from the top and bottom holes over each end, as can be seen in the volumes shown in the picture to the right.

Writing the titles and volume numbers on the individual volumes making up a book. They are held together in a wooden clamp and the perpendicular writing lines are indicated by weighted strings. If, when a book is examined, there is any irregularity in the writing, the discriminating book collector can see that his book is not an original edition and that the volumes comprising it are a mixed lot.

Paper-covered volumes are placed in a cardboard folder. This is the best type of folder for it is not open at the ends and so gives all round protection against dust and insects. (Below).





BOOKSTALL

Books for sale at the time of the Chinese New Year at a market held on that occasion in a place called Liu Li Ch'ang. Nearby are situated many of the best bookshops and antique shops in Peiping. The New Year is a time for settling debts and an especially large number of books, paintings and curios are then on sale. In the stall in the photograph there are old Chinese books stacked against the wall and on the table modern books printed in the western manner.



BOOKSHOP

The interior of a famous Peiping bookshop. The books, each with a dangling title slip, are neatly stacked on the shelves. Like booksellers everywhere, Chinese booksellers are courteous and knowledgeable people. They must be highly educated and possess encyclopaedic memories for the literature of China is a colossal one. Many of them are scholarly men and deeply interested in literature and calligraphy.



Detail of the shelves in a bookshop. Rare editions are kept in special wooden cases like the one held open. The title of the book is carved on the lid.

REPAIRING BOOKS

Right:—China, which has had paper books longer than any other country, and where insect pests abound, has devised special and highly skilled techniques for repairing books, especially those damaged by worms. In making such repairs, the book is dismembered into its component sheets and pieces of fine rice paper pasted over the holes made by the insects. When completed the repaired sheets look almost like new and paper can be repaired again and again. Sometimes it is necessary to paste a whole sheet of paper over the back of a damaged page, as is being done in the lower picture.





Fort Cumberland, at Fort Beauséjour was renamed after its capture in 1755. This water-colour drawing made about 1870 shows the powder magazine outside the main entrance. The building inside was a private residence built in the nineteenth century.

A New Brunswick Memorial

by ROBERT J. C. STEAD

THE MARITIME PROVINCES of Canada are liberally dotted with points where were enacted scenes significant in Canadian history, and nowhere has the value of these landmarks in the life of the nation been more fully appreciated. It was Joseph Howe, himself a Maritimer, who coined the sentence most frequently quoted in reference to our historic places: "A wise nation preserves its records, gathers up its muniments, decorates the tombs of its illustrious dead, repairs its great public structures and fosters national pride and love of country by perpetual reference to the sacrifices and glories of the past."

Among the places in the Maritimes which have been set aside as shrines to recall stirring events of the past, few have had greater significance in their bearing upon the course of Canadian history than the National Historic Park of Beauséjour and the museum which has been built within its grounds to house the relics associated with its defence. Located on a ridge of land between the Aulac and Missaguash Rivers, it was

originally established by the French as a counter defence against the English Fort Lawrence which stood on a parallel ridge about a mile and a half to the south-east. Work on Fort Beauséjour began in 1751, but before it had been completed, in 1755, it was attacked by a force of some 2,000 New Englanders from Boston under command of Colonel Robert Monckton. At Fort Lawrence the New Englanders were joined by a force of 300 British regulars, and immediately set about to capture the French position. They were able to establish themselves about 800 yards from Fort Beauséjour and to bring the fort under heavy fire. The fire, although heavy, does not seem to have been very sanguinary in its results, but a shell penetrated what was supposed to be a bomb-proof casemate, killing, as it happened, an Englishman who was confined there as a prisoner. The fact that the shelters of the fort were thus found to be vulnerable to the English fire, and the non-arrival of expected reinforcements, so discouraged the French commander and his officers that they made

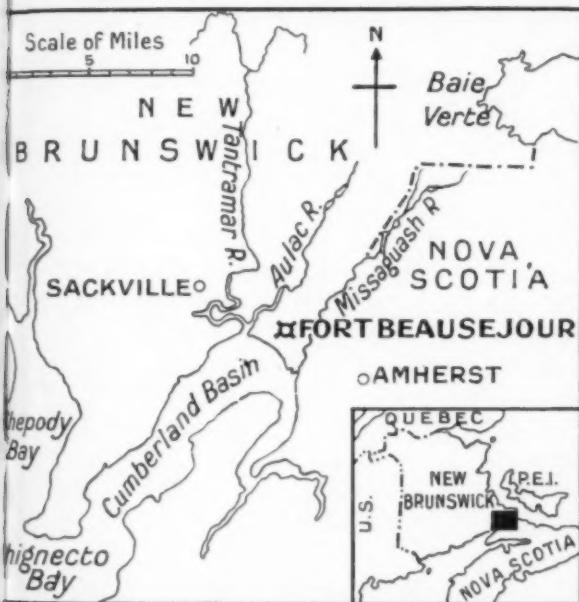
an offer of capitulation. The English terms were accepted, and in keeping with the chivalrous standards of those days, the English officers were invited to dinner in Fort Beauséjour. No doubt the French cuisine and hospitality were much to their liking; at any rate, the conditions of surrender were quite honourable. The French troops marched out of the fort with arms and baggage and with drums beating, and were sent to Louisburg by sea at the expense of the British Government. The Acadians were pardoned.

While the event has about it something of the colour of musical comedy, it is interesting to speculate upon what might have been

the results if the shell had not penetrated the casemate and if the French reinforcements had arrived. The Seven Years War had not yet begun — these exchanges took place during a period of nominal peace between England and France — but a decisive French victory at Beauséjour might have to some extent changed the course of history.

The English renamed the fort Fort Cumberland and moved their military headquarters there. Strangely enough, it was soon to become the chief point of defence against an attack from another quarter. Fighting between French and English ceased with the conclusion of the Seven Years War and settlers from the American provinces began to arrive in the country about Fort Cumberland. With the outbreak of the American Revolutionary War considerable sympathy with the Revolutionists became apparent. A certain Colonel Jonathan Eddy and a Scotch settler named John Allan sought the aid of the revolting provinces, raised a force in Maine, and launched an attack against Fort Cumberland. Twice they tried to scale the walls of the fort but without success. Much aid was given to the garrison by British settlers in the district, and the attackers were defeated and scattered in all directions.

Again it is interesting to speculate on what would have been the results had this attack been successful. The Revolution would have been firmly rooted at a key point between New Brunswick and Nova



Indian Geographical Journal map.

The remains of the old French casemate in which the English prisoner was killed by English fire. Photographed in the 1930's.





The restored remains of the powder magazine of old Fort Beauséjour. A mortar still points skyward beside the cairn in the background.

Scotia, and the history of the Maritime Provinces, and even of Canada itself, might have been written in very different language.

A National Historic Park

Repairs were made to the fort during the War of 1812, but after that it fell into disuse. The original pentagonal earthworks are still in a remarkable state of preservation, and one of the "bomb-proof" shelters has been partially restored. In recognition of the importance of Fort Beauséjour in the history of Canada an area of 59 acres, containing what remained of the fort, was in 1926 established as a National Historic Park by the Canadian Government, which has carried out extensive restorations since that time. In 1935 the first part of an historical museum

was built by the National Parks Bureau acting for the Government of Canada, and Dr. John Clarence Webster was appointed honorary curator. Mention of Dr. Webster introduces a name prominent in historical research in Canada. Under his interest and enthusiasm the museum almost immediately became over-crowded, and an addition to it was opened with appropriate ceremony in 1939. Even this did not long accommodate the growing display of exhibits which Dr. Webster's enthusiasm was able to cajole, beg, borrow or buy from sources near and far, and another wing was added to the museum by an official ceremony on August 2, 1949. In honour of Dr. Webster it bears a bronze tablet with the inscription "The John Clarence Webster Wing."



Stonework of the old fort, showing the loopholes made by the British for the defence of the powder magazine which lay immediately outside.

The Fort Beauséjour Museum in August 1949 on the occasion of the opening of the John Clarence Webster Wing. The new wing is seen to the rear and left of the picture.



Opening of the New Wing

The new wing was opened by Hon. Colin Gibson, acting for the Canadian Government, in the presence of about 2,000 people. The ceremony began with the firing of an old French cannon which had been retrieved for the museum by Dr. Webster at his own personal expense. In the course of his address Mr. Gibson paid tribute to Dr. Webster, saying, "It is only through the foresight of such men as Dr. Webster that records of the early days of our history have been preserved. The Dominion Government is most grateful to those distinguished scholars who have made available their knowledge and experience so that records which are available today will not be forever lost." Others who joined in the tribute at the dedication ceremonies were the Hon. D. L. MacLaren, Lieutenant-Governor of New Brunswick; the Hon. John B. McNair, Premier of the province; Rev. Dr. Clement Cormier, president of St. Andrew's University; Dr. Charles Aubrey Eaton, United States congressman who is a native of Pugwash, and N. S. Sanford, mayor of Amherst, Nova Scotia.

Standing on the speakers' platform bright with Union Jacks that August afternoon Dr. John Clarence Webster, C.M.G., M.D., D.Sc., LL.D., F.R.S., Edin. and Canada, etcetera, must have felt a glow born not of the winds that swept over the marshlands and toyed about the eaves of the Fort Beauséjour Museum. A frail looking but tightly-knit little man, now 86 years of age,

he had devoted a quarter of a century of his life to preserving the history of his province and to urging or stinging New Brunswickers into a tardy consciousness of their own stirring past. His efforts had materialized in 1934 in the form of the New Brunswick Museum at Saint John, and in the Fort Beauséjour Museum at the site of the ancient ruin near Sackville, New Brunswick, opened in 1936. And now came the recognition of his services in the opening of a new wing of the Fort Beauséjour Museum to be known as the John Clarence Webster Wing and the unveiling of a bronze plaque in his honour. Although eminent in his chosen profession of medicine he had long ago given his heart to historic research and particularly to the preservation of those places and things which had played a large part in laying the foundations of New Brunswick. As long ago as 1923 he had been made a member of the Historic Sites and Monuments Board of Canada, an honorary body of recognized historians which advises the National Parks Bureau with respect to the marking and preservation of historic places. Twenty years later he was made chairman of that Board, a position he still occupies.

It was appropriate enough that Dr. Webster should himself preside at the ceremonies marking the opening of the new wing that bears his name, and that the shot from the cannon with which the proceedings were opened should be fired from an old French gun which Dr. Webster himself had presented to the museum. With an



Dr. J. Clarence Webster (right) responding to the address of the Hon. Colin Gibson (left) following the opening of the new wing at the Museum. In the centre is Dr. Charles Aubrey Eaton, Congressman from New Jersey.

energy and accuracy which might be envied by a man of half his years Dr. Webster introduced and presented the various speakers, already named, who took part in the program.

Tribute to Dr. Webster

Hon. Colin Gibson, speaking for the Canadian Government, in addition to the remarks already quoted, said: "Fort Beauséjour National Historic Park owes much to Dr. Webster, and it gives me much pleasure to pay tribute to him today, not only as an outstanding son of the Province of New Brunswick who achieved high distinction in his career as a surgeon, but also as one of the outstanding historians of North America. Throughout his long and distinguished career Dr. Webster has been literally showered with honours, yet I think that few of the numerous distinctions conferred upon him are more highly prized by him than the chairmanship of the National Historic Sites and Monuments Board of Canada and his honorary office as Curator of the Fort Beauséjour Museum . . . Dr. Webster has been the Honorary Curator of the museum from the outset, and, indeed, it is in many ways his creation. He has presented a very con-

siderable number of the exhibits which it contains, and has by his untiring efforts obtained from his friends and neighbours a majority of the others. . . In 1942 Dr. Webster donated to the Crown, as an addition to the Fort Beauséjour National Historic Park, an area of great historic interest, about twenty acres in extent, a valuable and much appreciated gift which, I think, might be said to round off the park property. Then, last year, Dr. Webster presented to the Crown an outstanding historic site in the immediate vicinity of Fort Beauséjour. I refer to the old French dry dock at Lower Jolicure which, I understand, is one of the earliest dry docks of which there is a record in Canadian history. . . A little later in that part of this afternoon's ceremony which will take us inside the museum, it will be my privilege to unveil the bronze tablet presented by the Government of Canada which designates the new addition as 'The John Clarence Webster Wing' — a tribute to the distinguished Canadian whom we are all delighted to honour."

The old French dock referred to by Mr. Gibson is located about three miles from the

fort, and was the first dry dock in North America north of Mexico. As described in an article by Dr. Webster it consists of a massive dike, quadrilateral in shape, straddling the La Coupe River just south of Jolieure ridge a short distance above its junction with the Aulac River. The wooden dockgates have long since disappeared but, for the most part, the earthen dike has been well preserved. The dock was deeply excavated on the north side of the river to accommodate vessels of deep draught, whereas on the south side smaller craft could be stored in large numbers. Before any rivers were obstructed by aboiteaux the Bay of Fundy reached beyond the dock-site, the water there rising to a height of twenty feet or more at high tide. It was, therefore, easy to move all kinds of craft up and down the rivers La Coupe and Aulac by the action of the tides. The date of the construction of this dock was not later than 1700, almost 100 years before the building of the first commercial dry dock on the east coast of the United States. The gift made by Dr. Webster to the Crown consisted not only of the old dry dock itself but of the surrounding

area, all of which is now part of the National Historic Park of Beauséjour.

The other speakers were heard in the same vein, so much so that it became a question whether the occasion was the opening of a new wing of a government museum or one for paying honour to the man chiefly responsible for the existence of the museum itself. Indeed, it was both, for this New Brunswick memorial was erected as much in honour of Dr. Webster as for the more prosaic purpose of housing the historic material which his enterprise had assembled.

The afternoon wore on toward a close, and the assembled hundreds began to take their ways homeward. Thin daylight, soon to deepen into dusk, lay over the flat countryside. The old walls of Beauséjour stared sightless toward the marshy expanse of Tantramar or seaward toward the mouth of the Missaguash and the head of Cumberland Basin beyond. From over the marshes a stiff wind blew, pungent with the tang of mud flats and rank marsh grass, and soothed, perhaps, with voices that had their part in shaping the early history of Canada.

This bell was cast in Rochefort, France, in 1734. It hung in the church of the Abbé Le Loutre near Fort Beauséjour until 1755 when, upon the approach of the British, the French burnt the church. In 1818 it was installed in an Anglican church at Mount Whatley, eventually being released as an exhibit for the Museum. Three notes were tolled on this bell as part of the ceremony marking the opening of the John Clarence Webster wing.



Some Oxford Colleges

by EDGAR W. PITTS

Illustrations by the author

THE TOWN OF OXFORD was in existence considerably before the university came into being and just when it became recognized as a seat of learning is not known. During the hundred years after the Norman Conquest the great centre of learning was the University of Paris, but in 1167 there was a migration of students from Paris to Oxford, which was probably already known for its teaching. In 1214 a chancellor of the university was nominated and by about 1260 the university was termed second to Paris.

The first unprivileged students met with much hostility from the citizens of Oxford. In self protection they formed themselves into bands and acquired halls where they lived and dined. The coming of the friars in the thirteenth century — the Dominicans, Franciscans and Carmelites, and later the Benedictines — profoundly affected the community. Their good works and their excellent teaching established the reputation of Oxford and greatly improved conditions for the scholars.

University College (1249) was the first college to have a habitation (as a result of the first university legacy), but its statutes were not obtained until 1280. Balliol was endowed (as a penance) about 1260 but it, too, had to wait for its statutes. Meanwhile Walter de Merton had by 1274 bought a site and begun the buildings for his college, and had also secured a charter and statutes. Merton College (sketch 1) was therefore the first to have a corporate existence. Of the first three it is, moreover, the only one to retain some of its founder's buildings.

Merton College is in many respects the most interesting of the colleges of Oxford. From the time of its establishment students, instead of being casual sojourners in lodgings and halls, tended more and more to be gathered into organized, disciplined and dignified societies. Such is Oxford's debt to Walter de Merton, Lord Chancellor to

Henry III and Bishop of Rochester. His statutes, preserved at Merton, were consulted as precedents when other colleges were founded, at Cambridge as well as at Oxford.

Merton's objective was a secular house but he was to give it a magnificent chapel, planned on the scale of a cathedral, of which only half was ever built. "For one hundred and fifty years it arose by stages: the windows of its choir glowed in the faint lights of the thirteenth century; its tower was raised in time to catch the first glimmer of the Renaissance." In the ante-chapel are the monuments to Sir Thomas Bodley, Sir Henry Savile (once master), and Anthony Wood, greatest of Oxford antiquarians, who died in 1695 leaving us a great deal of information about early Oxford.

The library of Merton, built in 1377, is the oldest library in the kingdom. The muniment room is the oldest collegiate structure in Oxford and possibly dates from the lifetime of the founder. The hall gateway is of the same time. Of the three quadrangles, the small one on the north (which contains the library) is the oldest. The front quadrangle opens by a magnificent archway into the Inner, or Fellows' Court, built in 1610 in late Gothic, its south gate surmounted with pillars of the seven Greek orders. The common room (1661) was the first of its kind to be opened in Oxford.

Royalty has repeatedly enjoyed the hospitality of Merton, and Wood gives an account of a visit by Queen Catherine, wife of Henry VIII. Elizabeth was equally gracious, and was entertained after dinner with disputation by the Fellows. When Charles I came to Oxford, Queen Henrietta Maria occupied the Warden's lodgings, which was again tenanted by Charles II's queen, when the Court fled from plague-stricken London.



(1) Merton College



(2) *Front Quad, New College*

Merton has had great men among her Fellows, but none greater than John Wycliffe and among her scholars no man captures our sympathies more than Richard Steele, trooper and essayist, the friend of Addison, and the husband of Prue.

New College (sketch 2) dates from 1379. William of Wykeham, the greatest of Oxford founders, obtained his charter, but it was not till 1386 that Wykeham's society, which had been in existence for ten years or more at the neighbouring Hart Hall and elsewhere, entered its new home "with cross erect, and singing a solemn litany". New College, like the school William of Wykeham founded at Winchester, was established to supply not monks but "fit persons for the service of God in Church and State".

So magnificent was the new college in Wykeham's day that comparatively little change has been made to his buildings. The chapel has been restored of recent years to

something of its original magnificence by the replacing of the open timber roof (about 1880) and of the statues in the reredos (completed 1894). Of the glass, that in the ante-chapel is the original fourteenth century, except the great west window, which was inserted in 1782 from a design by Reynolds (who included his own portrait as one of the shepherds). Fine as it is, it was unpardonable to tamper with the original tracery, as was done. In the chapel proper, the windows on the south side are glazed in good Flemish glass of the seventeenth century, while the much inferior ones opposite are partly Flemish—and partly the work of W. Price, who "repaired" them in 1740. In the hall the fine linen-fold panelling was the gift of Archbishop Warham. The proportions of this apartment, otherwise the most beautiful in Oxford, were spoilt by the injudicious raising of the roof at the time of Sir Gilbert Scott's restoration. In the front quadrangle, the

harmony of the founder's design was ruined in the seventeenth century by the addition of a third storey, and by the modernization of the windows. The back quadrangle was added since the founder's time and completed in 1684. The new buildings in Holywell Street are considered by some critics as deplorable, but there is a fine tower, erected in 1880 to the memory of a former Bursar, Mr. Robinson.

The exclusive connection between Winchester School and New College, which the founder planned, proved in course of time a disadvantage. In 1857 half the fellowships and a few scholarships were thrown open to public competition. Since then the college has largely increased in numbers and representatives of all the great schools of England are sojourners within its walls. The founder, no doubt, would have approved an earlier alteration. He secured, as a special privilege to the Fellows of his foundation, that they should be admitted to all degrees of the University without asking any grace of congregation, provided they passed a satisfactory examination in their own college. His object was to impose a severer educational test than that which the University then afforded; when, however, University examinations became a reality, his good intention was nullified. Wykehamists pleaded their privilege, and so evaded the ordeal which members of other colleges must undergo. The College, to its credit, voluntarily abjured this questionable privilege in 1834; and is now second only to Balliol in the intellectual race.

Queen's College (sketch 3) was founded in 1340 by Robert Eglesfield of Cumberland, chaplain and confessor to Philippa, Edward III's queen. Impressed with the lack of facilities for education among Englishmen from the north, he practically restricted the benefits of his foundation to students from the north country, and the College is still intimately connected with that part of England. Philippa did her best for her con-

fessor's institution, and later queens have shown a similar interest. The statue under the cupola, above the gateway represents Queen Caroline, wife of George II.

With the exception of the library (1696) and the east side of the inner quadrangle, all the present buildings were erected in the eighteenth century. The library (sketch 4), a handsome apartment in the Classical style, was decorated by Grinling Gibbons, and contains, as well as a very valuable collection of books, ancient portraits on glass of Henry V and Cardinal Beauport. The chapel (1714) was designed by Wren, and the front quadrangle by his pupil Hawksmoor.

Queen's is tenacious of her old customs. Still the trumpet calls the Fellows to dinner; still, on Christmas Day, the boar's head is brought in "bedecked with bays and rosemary"—a survival, possibly, of the pagan custom by which at Yuletide a boar was sacrificed to Freyer, god of peace and plenty.



(3) Queen's College Gateway



(4) *The Library, Queen's College*

On the present site of *Magdalen College** (sketch 5) stood an old hospital, named after St. John the Baptist. This hospital, with its grounds, was made over to William of Waynflete in 1457; some remains of its buildings still survive in what is known as the Chaplains' Quadrangle; and in this hospital the new society found temporary shelter. Waynflete did not proceed at once to build his new college for the times were too disturbed, and with the victory of the Yorkist faction he found himself in peril. Pardoned, however, by Edward IV, he was at liberty to carry out his designs. If not his own architect, he certainly superintended the building, and with the exception of the famous tower, the work was completed before his death.

Magdalen is generally regarded as the most beautiful of Oxford's colleges — due to the loveliness of its surroundings as well as to its beautifully proportioned buildings.

*Pronounced *maudlin*.

(5) *The Pilgrim's Gate, Magdalen College*



The Pilgrim's Gate, Magdalen College, Oxford.

The foundation stone of the tower was laid in 1492. Tradition says it was designed by Wolsey, who was about that time Bursar of Magdalen; tradition also asserts that before the Protestant Reformation a Mass for the repose of the soul of Henry VII used to be said upon the top of the tower on every May Day, at dawn.

On the left of the tower stands St. Swithin's Buildings, designed in happy harmony with the older structure. Passing the lodge, one sees the old stone pulpit, from which a sermon was formerly preached on St. John the Baptist's Day — a custom revived some forty years ago.

From the cloisters, a splendid view of Waynflete's quadrangle and tower (the Founder's Tower) is obtained. The chapel, hall and library open out of this quadrangle.

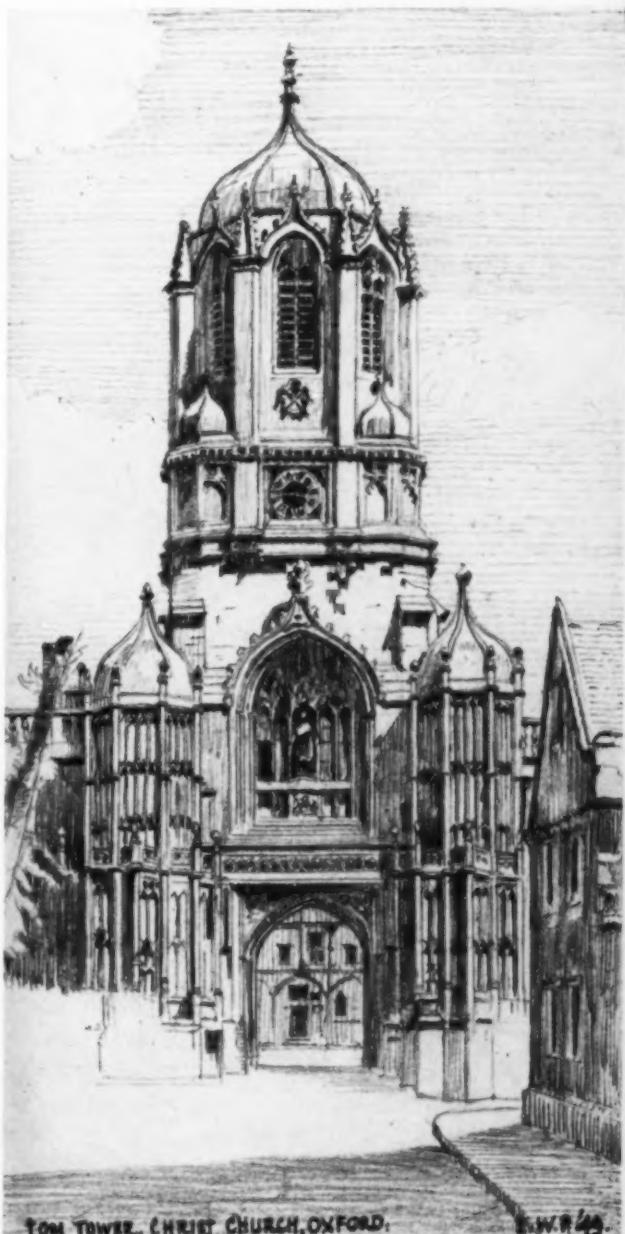
Many theories have been suggested in explanation of the curious stone figures in the quadrangle, which were put up after Waynflete's day. The most reasonable appears to be that which makes them represent the several virtues and vices which members of the College should seek and eschew.

Magdalen has welcomed many royal visitors, among them Edward IV in 1481 and Richard III in 1483. Richard was so pleased with the disputations provided for his entertainment that he presented the two protagonists (one of them was Grocyn) with a buck apiece and money as well. Other guests were Arthur, Prince of Wales, elder son of Henry VII, and Henry, son of James I, whose great promise was cut short by an early death. Cromwell and Fairfax dined at Magdalen when they received the degree of D.C.L. in 1649, and instead of hearing the usual disputations, played at bowls upon the college green.

Meanwhile, the College had educated its fair share of prominent men: Wolsey, Colet, afterwards Dean of St. Paul's; Cardinal Pole; William Tyndale, translator of the Bible; Llyly, whose "Euphues" gave a name to a certain style of writing; and John Hampden. A notable president (1561) was Dr. Laurence Humphrey, who was among

the Genevan exiles in Queen Mary's time. On his return, on the occasion of Queen Elizabeth's visit to Oxford, he was persuaded to wear ecclesiastical vestments. "Mr. Doctor," said the queen, who was aware of his dislike of such apparel, "that loose gown becomes you mighty well. I wonder your notions should be so narrow."

If Magdalen is the most beautiful of Oxford's Colleges, *Christ Church* is the most magnificent. Its founder was Cardinal Wolsey, who, though burdened with the affairs of State, found time to devote to



(6) *Tom Tower, Christ Church*

TOM TOWER, CHRIST CHURCH, OXFORD.

E.W.P. '45.



(7) *Fan-vaulted staircase, Christ Church hall*

architecture. Wolsey's plans for the new college were cut short by his fall from power. Three sides of the Great Quadrangle had arisen when the King stopped the work and for a century the structure stood unfinished.

The finest view of Christ Church from without is that which is obtained from St. Aldate's Street. Tom Tower (sketch 6) which forms the centre of the façade was not part of the original scheme, but was added in 1682 by Dr. John Fell, the then Dean and a debt of gratitude is due to him from the fact of his having employed Wren—if for no other reason. Wolsey's gate which was no higher than the two smaller towers between which his statue stands, might

easily have been spoilt by a less skilful designer. The tower is named after the great bell which it contains, brought from Osney Abbey. Every night "Tom" tolls a curfew of 101 strokes at nine o'clock, and at the closing strokes all college gates are shut and all undergraduates supposed to be within their college walls. In addition, to the tower, Dr. Fell completed the front towards St. Aldate's, fostered the University Press, and did his best to make examinations a reality. He also planted the elms of the Broad Walk, a beautiful avenue which custom has decreed as the regulation promenade on "Show Sunday" (in Commemoration Week); but since the beginning of the century, storms have unfortunately made havoc of one of Oxford's greater amenities.

The Great Quadrangle — "Tom Quad" in Oxford parlance — dwarfs by its dimensions all the other courts of Oxford. The arches and rib mouldings indicate the original intention of the first builders, which was to surround the quadrangle with a cloister. Though never carried out, the design conveys an impression of great splendour.

The hall is approached, through an archway of the southeastern corner of the quadrangle, by a wide staircase with a fine fan-vaulted ceiling (sketch 7) dating from the time of Dean Samuel Fell (father of Dr. John Fell). It was completed in 1640 and is probably the last piece of construction of its kind in England. The hall itself has no rival — Westminster only excepted. It measures fifteen feet by forty feet and is fifty feet high. The window above the dais contains full-length stained-glass portraits including Wolsey, More, Erasmus, Colet and other great men of the Protestant Reformation era; and the walls are hung with a very fine collection of portraits, including those of Henry VIII and Wolsey (by Holbein), Deans Aldrich and Atterbury (by Kneller), Charles Wesley (by Romney), George Canning (by Lawrence), Gladstone (by Millais), Charles Dodgson or "Lewis Carroll" (by Herkomer) and Dean Liddell (by Watts).

From Merton Street, one approaches "the House"** by Canterbury Gate, which opens

*Christ Church is not strictly a college; it was founded as "the House of Christ" and is spoken of as "the House". Its head is a Dean.

upon the small Canterbury Quadrangle which dates from the end of the eighteenth century. Beyond is Peckwater Quadrangle, built in 1705 after the Italian model, on the site of Peckwater Inn. The black and crumbling walls are in striking contrast to the smooth surface of Tom Quad. On the right hand is the library, which besides books, contains an interesting collection of paintings of the early Italian schools.

Some famous sons of Christ Church have already been mentioned but others who should be noted in a long list of distinguished names are Gladstone, Lord Salisbury, Lord Rosebery and Sir Robert Peel.

Wadham College (sketch 8) was the unrealized dream of Nicholas Wadham of Merifield, in the County of Somerset. The task of its fulfilment fell to his 75-year-old wife, Dorothy, who set to work with such purpose that within three years the college buildings were completed. The members were admitted in 1613 and the foundress lived some five years more.

The College is the most perfect specimen of late Gothic architecture in existence. No alteration whatever has taken place in the front quadrangle since its erection; only where the stones have crumbled have they been skilfully replaced. The chapel, in Per-

pendicular Gothic was built at the same time as the other buildings. The hall, one of the finest in Oxford, contains a large collection of portraits.

Wadham's early prosperity received a check in the Civil War, when its plate was melted down for the King and its Warden driven out by the Roundheads. Yet Wilkins, its new Warden, did not abuse his trust, and, thanks to his interest in science, it was here the idea of the Royal Society was conceived.

Wadham has not lacked famous members: Admiral Blake, whose statue watches today over his native Bridgewater; Wilmot, Earl of Rochester, who was a Master of Arts at 14; Onslow, Speaker of the House of Commons; Lord Melbury, whose inscription in the ante-chapel tells us that he "dated all his success in life from the time when he was elected a scholar of Wadham at the age of 15"; Dean Church among ecclesiastics and Dr. Congreve among Positivists. Wadham's traditional link with the west country was maintained when Sir Christopher Wren came to the college to work for his degree.

* * *

The author wishes to record his indebtedness to Mr. Christopher Hobhouse and Messrs. Robert Peel and H. C. Minchin, in the composition of this article.

(8) *Wadham College*
from the gardens





The Practical Igloo

by BRADFORD WASHBURN

Photographs by the author

THE HOUSE BUILT OF SNOW is a most primitive and yet at the same time a most practical form of shelter. Igloos have a number of great advantages over tents: First and foremost, they are a *quiet* shelter—they do not flap in a high wind. They are far better sleeping quarters than a tent, which inevitably flaps and roars like a cannon throughout a stormy night. They have no guy ropes which must be tightened in the middle of a storm to keep them from blowing away. No matter how much snow falls about them, it is not necessary to dig it away to keep the roof from ripping or falling in. Even for an inexperienced builder, they are relatively easy to construct, especially in windy coun-

Editor's note: Throughout this article "igloo" is used to denote a house built of snow blocks. The Eskimo word *igloo* is a broad term covering any more or less permanent shelter; to an Eskimo a snowhouse, a palace, or a cottage would each be an igloo.

At top:—A fall of fresh feathery snow humped over a snowhouse built at 11,000 feet on Mount McKinley.

try where the snow is well-packed and easy to cut into blocks. An igloo is impractical unless the temperature stays well below freezing *all the time*. In good igloo country, the temperature should never climb above 20° F. above zero. A tent must always be tended or constantly occupied in regions where there are heavy snows and high winds, otherwise it is apt to be buried, blown down or ripped to ribbons. An igloo can remain untended for weeks, unless the prevailing winds are so high and constant that they literally sand-blast the roof away.

The Boston Museum of Science expedition to Mount McKinley in 1947 is believed to be the first time that igloos have been used

extensively on a high mountain. Thirteen of them were built on this trip, and it is fair to say that their use cut the need for tentage nearly in half and made life at high altitude infinitely less disagreeable.

Defying tradition, we used an old hand-saw to quarry the blocks and a machete to trim them into final shape. Most of these igloos were built by one of the party who had learned the tricks of the trade from the Alaskan north coast Eskimos. A comfortable three-man igloo is about ten feet in diameter and six feet high inside, requiring about fifty snow blocks $24'' \times 24'' \times 6''$. The igloos built on McKinley were almost all set on relatively level terrain, but a Japanese mountaineering club has recently experimented very successfully with building them into a very steep snow hillside, thus greatly reducing the number of blocks needed.

It took about three hours to build each snowhouse in good weather on the lower reaches of McKinley (6,000 to 8,000 feet), but at 18,000 feet it took a full day to make a single one because of wind, intense cold and high-altitude lassitude.

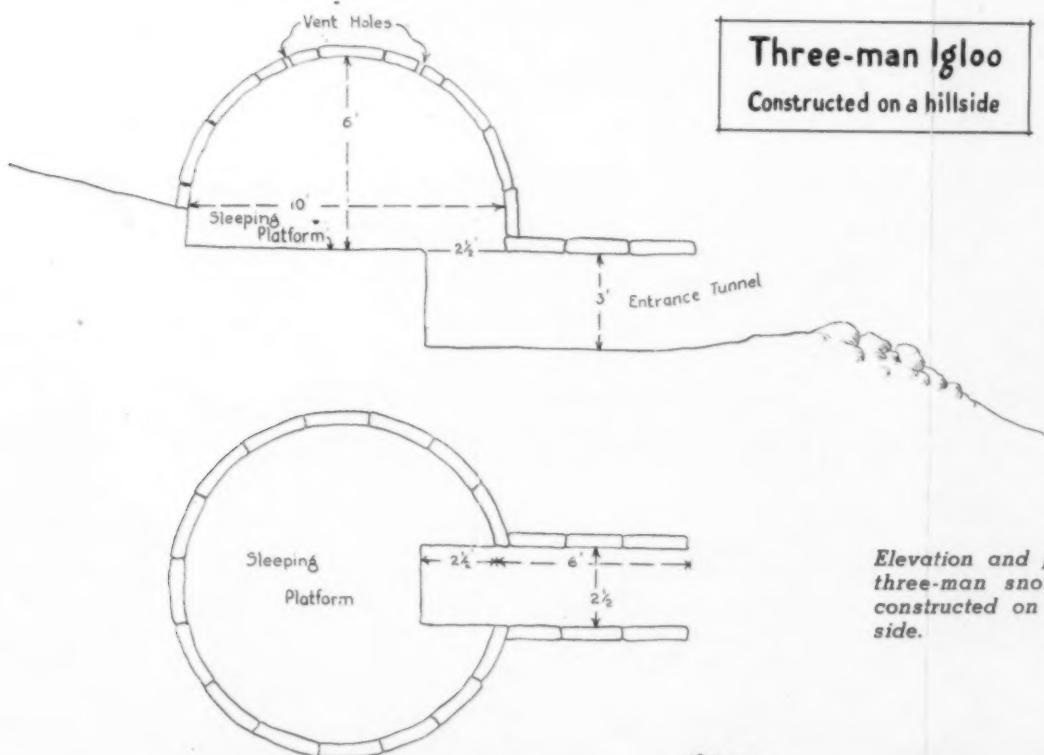
These igloos were not lined with skins, hence cooking in them had to be done very

carefully to avoid melting the roof. Usually two or three of them were used as dormitory quarters with cooking done in a nearby tent.

When the initial structure was completed and chinked from the outside someone would crawl in through the ten-foot tunnel and leave a burning gasoline stove in the igloo in order to melt the inside for about an inch. After about fifteen minutes the stove was removed and the inner surface quickly froze into a solid icy glaze.

A ventilating hole about three inches in diameter must be cut near the top of the dome on the side away from the prevailing wind. If the wind shifts radically, this hole can be easily plugged with a chunk of snow, a sock or a mitten and another one cut in an appropriate place.

Ample ventilation is important, particularly if gasoline stoves are to be used. The tunnel entrance should always be lower than the sleeping platform and the outer door of the tunnel must permit good ventilation of the tunnel itself. Glazed snow is impervious to carbon monoxide, and a badly ventilated igloo can easily cause a terrible catastrophe. Carbon monoxide is a heavy gas and pro-



Elevation and plan of three-man snowhouse constructed on a hillside.



Sawing the rectangular blocks of hard, wind-packed snow. Best snow for this purpose is in drifts four feet or more deep and of uniform, firm consistency.



The tops of a few blocks of the first tier ground and the second tier is begun, the works from

vision must be made for ventilating it *downward* out of igloos or other impervious shelters.

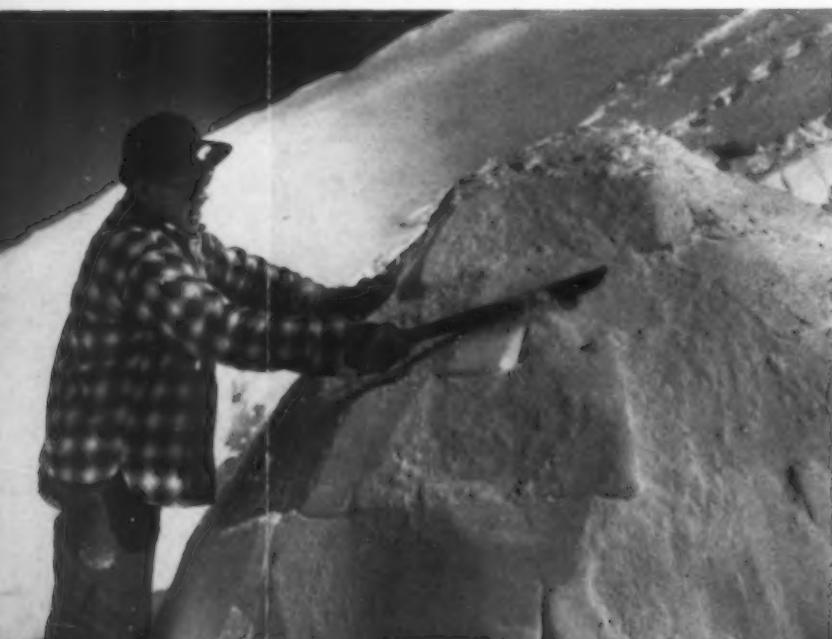
Because snow is such a splendid insulator, a ten-foot igloo with room for three is never very cold even when the stove is not going. On the other hand, an unlined igloo can never be truly warm or it will collapse. A tent, on the other hand, can easily be heated to nearly 100° F. with two stoves

burning—but when the stoves are turned off the temperature drops very rapidly to only 10° or so above the frigid outside temperature, even when warmed by the body heat of three sleeping men.

Last but not least, on a big mountain a chain of igloos placed at strategic intervals, as we had on McKinley, provides a wonderful safety factor—not only as reliable emergency shelter, but also for caching reserves of

Smoothing off the outside of the igloo with a machete prior to chinking the cracks with soft snow. If the chinks are large, pieces of snow block serve as filling, tamped in with soft snow.

Making the entrance tunnel. A trench is dug quickly



from



are sloped off diagonally towards the walls rising in a spiral. The builder inside.

food, fuel or even clothing, where they are most likely to be needed badly on the storm-swept upper reaches of the mountain. Even with the tremendous winds that constantly sweep Harper Glacier, our 16,500-foot igloo remained intact as a splendid refuge for over six weeks.

Probably the main reasons why bona fide snowhouses (not snow shelters or caves) have been so rarely used on mountains are because

very few mountaineers have the slightest idea of how to build one, and because suitable conditions of deep wind-packed snow are required for building material.

The constant use of igloos on our McKinley expedition proved such a boon to safety, comfort and convenience, that I should never again plan an arctic climb without relying heavily upon them from the very start.

which is dug and the sides built up and roofed
kly coalesce in freezing temperatures.

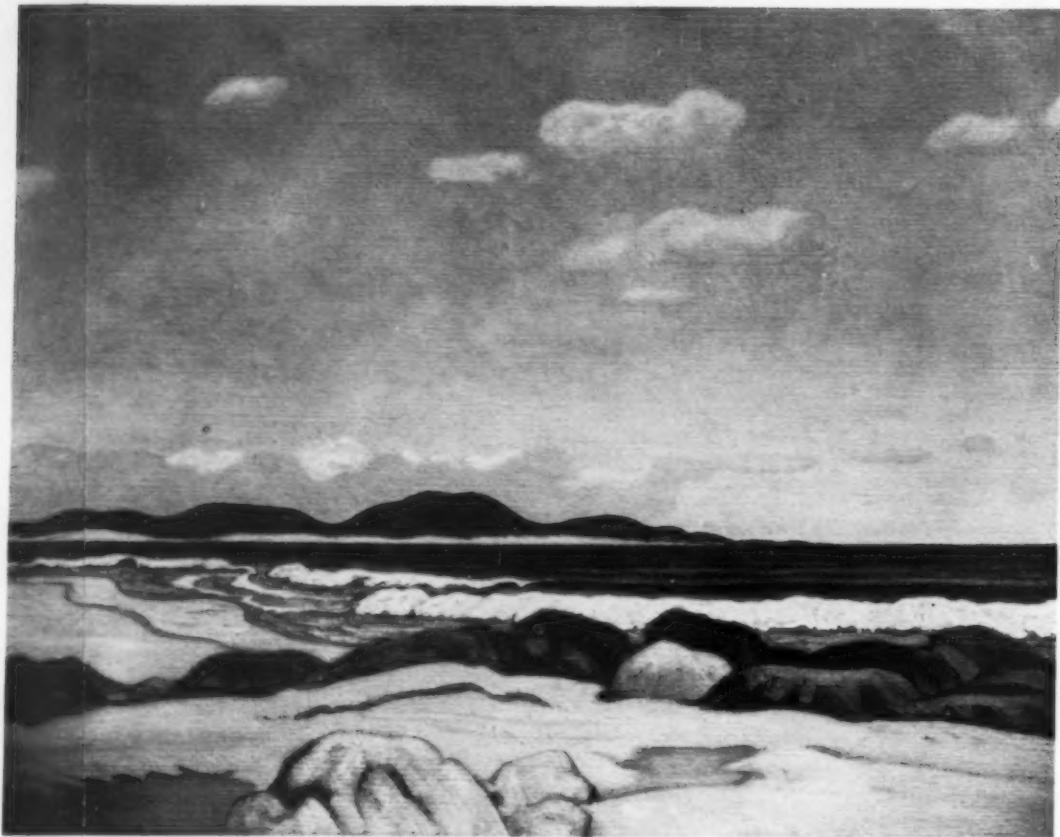


The helper outside hands blocks to the builder. To complete the dome the inside man raises a block edgewise through the hole above his head, turns it horizontally and lowers it gently like a lid.



Mrs. Washburn, who was a member of the Mount McKinley expedition which made great use of dome snowhouses, standing outside a small igloo at the base camp.





"Seashore, Nova Scotia" by J. E. H. Macdonald

National Gallery of Canada

Canadian Geography and Canadian Painting

by JOHN K. B. ROBERTSON

NOTHING is so illuminating in explaining the growth and pattern of Canadian art as Canadian physical geography. While physical characteristics have at times impeded the progress of Canadian art, they have nevertheless been at the very root of the unique and vigorous style typical of the landscape painting of this country.

The chief impediments to art have been the regional diversities, springing from political, racial and economic factors. The geographical structure of the country has created sectional problems, both political and economic, which continued efforts over a long period have only partially overcome. Great

distances, mountain barriers, and open plains limited communication between the people of one geographical area and those of another until comparatively recent times.

Where there are facilities for exchange and harmony exists, diversity is a stimulus. Where, however, the exchange of views and of the products of the creative imagination is a rarity, then diversity may well be an impediment in the maturing process.

At first, art tended to develop regionally in the Maritime Provinces, in southeastern Quebec and Ontario, and later in the West, but once the regional barriers were overcome the very diversity of these areas was

CANADIAN GEOGRAPHY AND CANADIAN PAINTING

a constant and stimulating inspiration to Canadian artistic expression.

The first artists in Canada were the surveyors, engineers, military officers, missionaries, and later the colonial officials, whose business, at least in part, was the recording of the geography of a newly discovered land. While not all were artists, the majority were competent craftsmen because in those days the ability to sketch was an accomplishment taken for granted among the well educated.

Typical of this work are the somewhat meticulous sketches by the early topographical artists such as Richard Short, who made several drawings of the Harbour of Halifax while stationed there with the British fleet. The records of military engineers and the log-books of ships of the Royal Navy offer many examples, often of high artistic merit, of this early work.

On the heels of the first settlers came pro-

fessional artists who painted Canada in the light of their European experience. One of these, Paul Kane, received from Sir George Simpson, Governor of the Hudson's Bay Company, what was probably the first commission granted to an artist in Canada, and he left us accurate pictures not only of the Indians but of their physical surroundings. At the same time Cornelius Krieghoff* was painting in a style reminiscent of Dutch *genre* scenes.

This topographical, historical art is associated mainly with Ontario, Nova Scotia, and the east coast generally, including Newfoundland. In Quebec the impetus was ecclesiastical rather than geographical, although James Duncan's water-colour views of Montreal which were engraved for Newton Bosworth's *Hochelaga Depicta* might be characterized as geographical in the broad sense of the term. In fact, art of any kind was for many years confined to the eastern

*See Krieghoff Discovers Canada by Marius Barbeau, Canadian Geographical Journal, March 1934.

"Indians at a Portage" by Cornelius Krieghoff

(Caughnawaga Indians)



Collection:
O. Sweezey, Esq.



"Saint John's, Newfoundland" by Leonard Brooks

War Records Collection

provinces. The nineteenth century had given birth in the east to those artistic traditions and institutions which are finding their fulfilment in the twentieth century, but it was not until the twentieth century that art became a factor in the life of the western provinces. It is true that Paul Kane had reached the Rockies in the eighteen-forties and that Henry Youle-Hind, professor of chemistry and geography at Trinity University, Toronto, had made many drawings and water-colours while attached to the first Red River expedition in 1857. However, Hind's work and that of his brother, William G. R. Hind, like that of William Armstrong, a civil engineer employed by the Grand Trunk Railway, is valued chiefly for its historical and topographical interest. But it was the more adventurous of the painters who went first and, as in the east, it was geography which provided the stimulus and the subject matter for Lucius O'Brien,

T. Mower-Martin and F. M. Bell Smith when they visited the west in the eighteen-seventies and eighties and more recently for James Henderson who has painted the Qu'Appelle Valley in Saskatchewan.

Up to this point geography had been without emotional impact upon the artist, even though it had been the predominant feature in works produced primarily to disclose to a wondering Europe the strange aspects of a new world. The rugged contours, the mighty falls and broad rivers, the inland seas, the frozen wilderness had only the very slightest effect on the style of those who first recorded them, and upon the style of the trained artists from Europe who followed in their footsteps. This strict adherence, for almost three centuries, to a style acceptable to the Royal Academy prevented the early development of a truly Canadian art. It was natural, perhaps, that artists accustomed to sketching the Euro-

CANADIAN GEOGRAPHY AND CANADIAN PAINTING

pean landscape, trained in Europe, and conditioned to the quality of light from European skies, should impose the quality of the European landscape and atmosphere upon the Canadian scene and should apply the discipline appropriate to the more orderly countryside of England and the continent to the apparent disorder of Canada's geography. The contemporary artist, on the other hand, has recognized that the Canadian landscape is not bathed in the diffuse light of Dutch skies nor in the hot and brilliant sun of the Mediterranean regions, but that it has a character of its own. For this reason he has evolved a style consistent with its character and also closer to the underlying truths of the Canadian scene. This style, like the landscape, is bold, rugged and colourful, eminently suited to the expression of the spirit inherent in the landscape. It is this spirit which is the common denominator and which gives Canadian art its unity despite diversities of geography and race. This spirit is engendered by qualities less tangible but

none the less real, by the grandeur and magnitude of nature—and the corresponding insignificance of man and his works—and by similarities of form and colour and atmosphere.

Canadian painting, then, is by tradition landscape painting, and what is landscape if not geography as recorded and interpreted by the artist? When H. G. Glyde and A. Y. Jackson paint the far northwest they are working in the same tradition as Champlain and Father Hennepin, seeing and recording the new and the unknown. The significant difference between the twentieth century painter and the artist of the nineteenth century in Canada is the presence in the one and the absence in the other of a heightened emotional or intellectual perception which alters the finished work from a mere duplication or transcription of nature to a subjective interpretation. While the earlier painter kept faith with geography, the contemporary artist adds a quality which the cartographer, the surveyor and the professional geographer must omit. In the second

"Radium Mine" by A. Y. Jackson

(Northwest Territories)

Art Gallery of Toronto



National
Gallery
of
Canada



(ONTARIO)

"The Whitefish Hills" by Franklin Carmichael

"The Waterfall" by Tom Thomson



Private
Collection

The Big R
Bon Echo'

W
Arthur Lis

National
of

"Laure



Provincia
Museum
of Quebec

"Laurentian Village" by Clarence A. Gagnon

(QUEBEC)

(ONTARIO)

The Big Rock,
Bon Echo"

Arthur Lismer

National Gallery
of Canada





"Foothills of Alberta" by A. Y. Jackson

Collection: Hon. W. A. Buchanan

"The End of Winter" by James Henderson

(Saskatchewan)

National Gallery of Canada





"Dharana" by F. H. Varley

Art Gallery of Toronto

case the result, although perhaps scientifically inexact, may be more satisfying aesthetically.

If Canadian art has been predominantly a landscape art there are two reasons. There is in the Canadian landscape the same emotional quality which lies behind all romantic art. These same characteristics helped to shape the ancient Nordic art of Europe, characteristics engendered by dark waters, by twisting undergrowth, by the haunting silences of unknown forests and by the mystery of distant mountains. Emotion may induce exaggeration, and so the artist, being more sensitive to these qualities in the landscape than the geographer, does more than merely record geography. It is the impact of geography upon his emotions which he records.

Canadian landscape, as one moves from coast to coast, is always on a grand scale

and ever changing; it is everywhere a complex arrangement of lines, colours, planes, masses and tones. Here lies the intellectual appeal to the artist whose sensitivities are such that he intuitively grasps this formal pattern. In recording it he may alter the pattern because he thinks in terms of design, and because that segment of nature which he is recording might not, in a too literal transcription, result in a design which is aesthetically satisfying. Here again the artist goes beyond the geographer. The geographer may apprehend the formal pattern but he cannot allow aesthetic considerations to over-ride scientific accuracy.

The explanation, then, of the character of Canadian landscape painting of the past thirty-five years lies in the character of Canadian geography, which is unlike the geography of England, of France, of Germany—and clearly it would be false to paint



"Icebergs and Mountains" by Lawren Harris

Collection: H. S. Southam, C.M.G.

Canada in a style appropriate only to the landscape of France, Germany or England. However, it is worth noting that the geography of much of Canada is not unlike that

of Norway and Sweden and it is significant that there has been an affinity between the Canadian and Scandinavian styles.

When the physical features of the land-



"Logged Over
Landscape"
by Emily Carr

(British Columbia)

National Gallery
of Canada



"Castaways, Vancouver Island" by Wm. P. Weston

Private Collection

scape are on a small scale, where they do not overshadow man and his works, the tendency of the artist is to particularize. But when the artist is confronted with the *silence* of limitless virgin forest, the *coldness* of Arctic wastes, the *grandeur* of countless mountain peaks, the *density* of tangled undergrowth, the *brightness* of sunlight on tree-fringed lakes, the headlong *speed* of water over jagged rocks and sunken logs, it is the universals of silence, coldness, grandeur, density, brightness and speed that become significant and which he must express on his canvas. The particular leaf or tree or mountain or rock becomes unimportant, and just as the expression of the essential spirit is lost by particularizing, so the whole formal pattern, the over-all harmony of planes, colours, masses can only be achieved by a broad, bold style which accentuates, even

over-accentuates, those essential universal qualities of the landscape which give it grandeur and individuality.

The first and most significant combination of the emotional and intellectual perception of Canadian geography in this manner is found in the work of the Group of Seven and Tom Thomson. With a few vivid canvases J. E. H. MacDonald, Arthur Lismer, A. Y. Jackson and Lawren Harris accomplished more in the apprehension of the essence of Canada's geography, in the presentation of its fundamental characteristics and in the interpretation of its underlying forms, than could be accomplished with many photographs. The same is true of works by others who followed in their footsteps. They explored the Algoma region north of Lake Superior, the rocky islands of the Georgian Bay and the lakes and streams of

Algonquin Park, and everywhere they felt an excitement in the sweeping rhythms of sky and rock and water, in the oddly shaped patterns of dark spruce beside autumn tinted maples.

A similar impact upon the artist was made by other regions of Canada. From the Algoma district MacDonald and Harris went to the Rockies, and later Harris became absorbed with the potentialities for formal compositions which he saw in the vast icefields of the Arctic. In these arctic paintings the artist's feeling for the underlying design predominates and it is but a brief step to the extraction of the forms from their geographical setting. Thus geography becomes simply a point of departure, the end product being abstract forms and their relationships. In the west Emily Carr, painting in her own individual style which was at the same time consistent with the bold pattern established by the Group, recorded the thick and swirling undergrowth of the British Columbia coast, and the Indian settlements at the water's edge with their slender totem poles blending village with forest.

But Canada's geography is not all rugged and spectacular. The quieter patterns of Southern Ontario and Quebec are an equally valid aspect of Canadian landscape. A. Y. Jackson is as well known for his Quebec landscapes with their horizontal rhythms as for his earlier paintings of northern Ontario. Carl Schaefer's ploughed slopes, H. S. Palmer's gentle vistas with grazing sheep, Caven Atkin's *Woodbridge, Ontario*, all show the presence of man, but nature still dominates. Even in such paintings as Yvonne McKague Housser's *Cobalt* it is the physical features of the country which seem to be of prime importance, even though buildings almost fill the canvas; the houses, precariously perched on rocky outcroppings, are there because of what the earth has to offer man.

Man himself, his works and his activities have been absent from Canadian painting. Elsewhere, and at other periods in history, man has been preoccupied with himself, with his wars, his revolutions, his religions, his

politics, and his intellectual concepts, and the tendency has been to take his surroundings for granted. But in Canada, during three hundred years of settlement and of pushing beyond geographical barriers, the continual challenge of the landscape has never failed to impress the painter. Man has had to pit himself against his environment, and only now are we beginning to see man and his works predominating in Canadian painting.

It is only when men have created their traditions and have settled themselves into their surroundings that human relationships loom larger than the physical environment, and it is perhaps a sign of approaching maturity when the human element replaces the physical. This replacement has been a gradual but nevertheless continuous process in Canada. At first the character and spirit of the landscape spread itself over anything extraneous which was introduced, drawing it into the larger pattern of nature, but slowly the human aspect is taking a larger place in Canadian painting. As this occurs some of the individuality springing from geographical factors may vanish. However, there is something in the Canadian character which differentiates the Canadian from the Australian, the Englishman and the American. This quality, as it becomes more sharply defined, may leave its stamp on Canadian art as firmly as has physical geography in the past. Thus there should always be works of art recognizable as Canadian by virtue of their distinctive form and spirit.

The surveyors, the engineers and others whose work takes them to strange places no longer need the sketch book and the pencil. The camera has replaced the water-colour brush, and the aeroplane is at the service of the geographer. The original link, then, between physical geography and art has been broken, but an art which has been thus nurtured will not lightly give up its allegiance, and the common factor which has been inherent in the works of most Canadian painters of the past forty years despite individual differences of style will continue to be an inspiration.



"Cobalt" Ontario by Yvonne McKague

National Gallery of Canada

"Woodbridge, Ontario" by Caven Atkin

Private Collection





Turtle Mosaic

by DOUGLAS LEECHMAN

CANADA is a country in which large prehistoric buildings are few. We have kitchen-middens on the Atlantic and Pacific coasts, we have mounds in southern Manitoba, we have the remains of houses among the Eskimo. These are all reasonably familiar and easily recognized.

On the prairies, however, we find another type of structure which has never yet been

explained to everybody's satisfaction. They are known as boulder mosaics, and are made by arranging boulders in patterns. Squares, rectangles, circles, and other geometrical figures occur, including wheels. More remarkable still are those which outline the figures of men, turtles, or snakes. They are found principally on the prairies, from Iowa north to Manitoba and from there west as



The turtle, outlined by stones, found in Whiteshell Forest Reserve, Manitoba.

far as southern Alberta and Montana. In many cases they are on top of a knoll or on the edge of a coulée, sites from which a large expanse of prairie can be seen. As a rule, tipi rings are to be found nearby, marking an ancient camp site.

The only clue which we have to the purpose of any of these forms is that the Crow Indians of Montana sometimes made mosaics

representing a human form to shame a wife who had been unfaithful.

A very remarkable series of these boulder mosaics is found in the Whiteshell Forest Reserve, forty miles or so east of Winnipeg. Here the prairie has given way to a forested area in which are numerous outcrops of granite, worn smooth and flat by glacial action. Some of these outcrops measure several acres in extent and boulder mosaics have been constructed on many of them. The one illustrated shows a turtle with the head to the left, and the left hind foot projecting towards the bottom of the picture. This figure is constructed of stones which lay nearby, part of the glacial debris left behind by the retreating ice. They are covered with lichens and, if one of them is moved, the rock surface underneath shows discoloration, so the stones must have been in position for a long time.

In a somewhat less accessible part of the forest reserve are much larger structures on extensive areas of glaciated rock and the arrangement of the boulders suggests that they may have been used in the religious ceremonies of the local Ojibwa Indians, since the outlines are similar to designs on birch-bark rolls used in these rituals.

Apparently there are a great many figures in this area, for several previously unknown ones were discovered in the course of recent road construction. Some effort was made to protect them but, all too frequently, vandals, or people who did not realize what they were doing, have disturbed the mosaics, either by using the stones for some other purpose, or through wanton destructiveness. It is hoped that definite steps will be taken to preserve at least the most important ones.

About 1909, the stones forming a turtle mosaic in North Dakota were carefully numbered and moved to the grounds surrounding the Capitol at Bismarck, then relaid in their original position, and with the same reference to the points of the compass. Possibly something similar might be done in a park in Winnipeg.

Canadian Geographical Journal

INDEX VOLUMES XXXVIII AND XXXIX, 1949

Volume	Page	Volume	Page
A Geologist Looks at the Quetico-Superior Area. Wallace W. Atwood (July)	XXXIX 36	Churchill, Manitoba. M. Y. Williams (Sept.)	XXXIX 122
A Mari Usque Ad Mare (April)	XXXVIII 174	Co-operative Farming in Saskatchewan. Jim Wright (Aug.)	XXXIX 68
Africa. <i>See</i> Kano in Hausaland (Jan.)	XXXVIII 38	Crich, W. V.	
Alberta. <i>See</i> Hidden Lake (Jan.)	XXXVIII 2	Canadian Birds Part IV (Mar.)	XXXVIII 136
Alcock, F. J. The Isles of Fundy (Sept.)	XXXIX 92	Part V (May)	XXXVIII 236
Alpine Deer. Steven Celebonovic (June)	XXXVIII 278	Part VI (June)	XXXVIII 286
Annual Meeting, The Canadian Geographical Society (Apr.)	XXXVIII VII	Canadian Flowers Part III (Apr.)	XXXVIII 192
Antarctic, Whaling and Its Problems. Harry R. Lillie (Mar.)	XXXVIII 104	Fungi (Nov.)	XXXIX 228
April (poem). Wilson MacDonald (Apr.)	XXXVIII 190	Giant Silkworm Moths (July)	XXXIX 33
Archibald, E. S. Dominion Experimental Farms (June)	XXXVIII 242	Cutts, Anson B. The Old Scottish Architecture of Ontario (Nov.)	XXXIX 202
Architecture of Ontario, The Old Scottish. Anson B. Cutts (Nov.)	XXXIX 202	Deer, Alpine. Steven Celebonovic (June)	XXXVIII 278
Art. <i>See</i> Canadian Geography and Canadian Painting (Dec.)	XXXIX 262	Dominion Experimental Farms. E. S. Archibald (June)	XXXVIII 242
Asia. <i>See</i> Magic Land of Assam (Nov.)	XXXIX 194	Exploration of the Lloyd George Mountains in British Columbia. N. E. Odell (Feb.)	XXXVIII 48
Asia. <i>See</i> Making Books in China (Dec.)	XXXIX 232	Farm, Newfoundland's Demonstration. H. L. Trueman (June)	XXXVIII 276
Asia. <i>See</i> To Petra, City of Rock (Feb.)	XXXVIII 64	Farmer Whalers (Mar.)	XXXVIII 144
Assam, Magic Land of. H. Thompson Rich (Nov.)	XXXIX 194	Farms, Dominion Experimental. E. S. Archibald (June)	XXXVIII 242
Atomic Energy, The International Control of. A. G. L. McNaughton (May)	XXXVIII 238	First Men in the New World. Douglas Leechman (Nov.)	XXXIX 184
Atwood, Wallace W. A Geologist Looks at the Quetico-Superior Area (July)	XXXIX 36	Fisheries. <i>See</i> Harvest of the Waters (July)	XXXIX 2
Barbeau, Marius. Maple Sugar (Apr.)	XXXVIII 176	Flowers, Canadian. W. V. Crich. Part III (Apr.) Viburnum; Glaucus Willow; Skunk Cabbage; Pitcher Plant	XXXVIII 192
Barton, G. S. H. The World Food Supply (May)	XXXVIII 228	Fox, William Sherwood. Ontario's Tercentenary (Mar.)	XXXVIII 96
Bird, Will R. Nova Scotia's Highland Cape Breton (Feb.)	XXXVIII 78	Freeman, H. E. Wealth from the Canadian Shield (May)	XXXVIII 198
Birds, Canadian. W. V. Crich. Part IV (Mar.) Canada Goose; American Woodcock	XXXVIII 136	Fungi, W. V. Crich (Nov.)	XXXIX 228
Part V (May). Yellow-billed Cuckoo	236	Geithmann, Harriet. The Bridge of the Giants (Oct.)	XXXIX 154
Part VI (June). Least Bittern; Red-shouldered Hawk	286	Gendreau, Henry William. Quebec's Monteregan Hills (Sept.)	XXXIX 108
Bridge of the Giants, The. Harriet Geithmann (Oct.)	XXXIX 154	Giant Silkworm Moths. W. V. Crich (July)	XXXIX 33
Britain. <i>See</i> Inn Signs of England (Feb.)	XXXVIII 92	Graham, R. P. John Ross and Meteorites (Nov.)	XXXIX 222
Britain. <i>See</i> Some Oxford Colleges (Dec.)	XXXIX 250	Halifax 1749-1949. D. C. Harvey (Jan.)	XXXVIII 6
British Columbia, Exploration of the Lloyd George Mountains in. N. E. Odell (Feb.)	XXXVIII 48	Harrington, Lyn. The Queen Charlotte Island (Aug.)	XXXIX 44
British Columbia. <i>See</i> The Queen Charlotte Islands (Aug.)	XXXIX 44	Harrington, Lyn. Sculptor of Wood (Nov.)	XXXIX 218
British Columbia. <i>See</i> The Skeena River Salmon Investigation (Aug.)	XXXIX 60	Harrington, Lyn. Tractor Trails in Manitoba (Feb.)	XXXVIII 70
British Honduras. E. O. Hoppé (July)	XXXIX 18	Harvest of the Waters. Lorne Manchester (July)	XXXIX 2
Canadian Geographical Society, The. Annual Meeting (Apr.)	XXXVIII VII	Harvey, D. C. Halifax 1749-1949 (Jan.)	XXXVIII 6
Canadian Geography and Canadian Painting. J. K. B. Robertson (Dec.)	XXXIX 262	Hidden Lake. Albert Potvin (Jan.)	XXXVIII 2
Canadian Shield, Wealth from the. B. J. McGuire and H. E. Freeman (May)	XXXVIII 198	Holbrook, E. M. Oil from the Earth (Oct.)	XXXIX 134
Canals in Cradle and Grave. Vinton Mader (Oct.)	XXXIX 177	Hoppé, E. O. British Honduras (July)	XXXIX 18
Cape Breton, Nova Scotia's Highland. Will R. Bird (Feb.)	XXXVIII 78	Hoppé, E. O. Chicle (Sept.)	XXXIX 118
Celebonovic, Steven. Alpine Deer (June)	XXXVIII 278	Hoppé, E. O. Kano in Hausaland (Jan.)	XXXVIII 38
Central America. <i>See</i> British Honduras (July)	XXXIX 18	Igloo, The Practical. Bradford Washburn (Dec.)	XXXIX 258
Chicle. E. O. Hoppé (Sept.)	XXXIX 118	Ireland. <i>See</i> The Bridge of the Giants (Oct.)	XXXIX 154
China, Making Books in. Hedda M. Morrison (Dec.)	XXXIX 232	Inn Signs of England. W. H. Owens (Feb.)	XXXVIII 92
		International Control of Atomic Energy, The. A. G. L. McNaughton (May)	XXXVIII 238

Volume	Page	Volume	Page
Isles of Fundy, The. F. J. Alcock (Sept.)	92	Ontario. <i>See</i> A Geologist Looks at the Quetico-Superior Area (July)	36
John Ross and Meteorites. R. P. Graham (Nov.)	222	Ontario, The Old Scottish Architecture of. Anson B. Cutts (Nov.)	202
Kano in Hausaland. E. O. Hoppé (Jan.)	38	Ontario's Tercentenary. William Sherwood Fox (Mar.)	96
Keenleyside, H. L. Recent Developments in the Canadian North (Oct.)	156	Owens, W. H. Inn Signs of England (Feb.)	92
Leechman, Douglas. First Men in the New World (Nov.)	184	Patterson, J. Meteorology in Peace and War (Mar.)	114
Leechman, Douglas. Turtle Mosaic (Dec.)	274	Petra, City of Rock, To. J. P. Short (Feb.)	64
Lillie, Harry R. Whaling and Its Antarctic Problems Today (Mar.)	104	Pitt, Edgar W. Some Oxford Colleges (Dec.)	250
Lloyd George Mountains in B.C., Exploration of. N. E. Odell (Feb.)	48	Potvin, Albert. Hidden Lake (Jan.)	2
MacDonald, Wilson. April (poem)	190	Practical Igloo, The. Bradford Washburn (Dec.)	258
McGuire, B. J. Wealth from the Canadian Shield (May)	198	Pritchard, A. L. The Skeena River Salmon Investigation (Aug.)	60
MacKenzie, W. C. The Whaling Industry: Economic Aspects (Mar.)	140	Quebec's Monteregian Hills. Henry William Gendreau (Sept.)	108
McNaughton, A. G. L. The International Control of Atomic Energy (May)	238	Queen Charlotte Islands, The. Lyn Harrington (Aug.)	44
Mader, Vinton. Canals in Cradle and Grave (Oct.)	177	Quetico-Superior Area, A Geologist Looks at the. Wallace W. Atwood (July)	36
Magic Land of Assam. H. Thompson Rich (Nov.)	194	Recent Developments in the Canadian North. H. L. Keenleyside (Oct.)	156
Making Books in China. Hedda M. Morrison (Dec.)	232	Regional Bibliography, 1948 Supplement (May)	XII
Manchester, Lorne. Harvest of the Waters (July)	2	Rich, H. Thompson. Magic Land of Assam (Nov.)	194
Manitoba, Churchill, M. Y. Williams (Sept.)	122	Robertson, J. K. B. Canadian Geography and Canadian Painting (Dec.)	262
Manitoba, Tractor Trails in. Lyn Harrington (Feb.)	70	Ross, John, and Meteorites. R. P. Graham (Nov.)	222
Maple Sugar. Marius Barbeau (Apr.)	176	Salmon Investigation, The. Skeena River. A. L. Pritchard (Aug.)	60
Meteorology in Peace and War. J. Patterson (Mar.)	114	Saskatchewan, Co-operative Farming in. Jim Wright (Aug.)	68
Mining. <i>See</i> Wealth from the Canadian Shield (May)	198	Sculptor of Wood. Lyn Harrington (Nov.)	218
Monteregian Hills, Quebec's. Henry William Gendreau (Sept.)	108	Short, J. P. To Petra, City of Rock (Feb.)	64
Morrison, Hedda M. Making Books in China (Dec.)	232	Skeena River Salmon Investigation, The. A. L. Pritchard (Aug.)	60
Moths, Giant Silkworm. W. V. Crich (July)	33	Some Oxford Colleges. Edgar W. Pitt (Dec.)	250
New Brunswick. <i>See</i> The Isles of Fundy (Sept.)	92	Stead, Robert J. C. A New Brunswick Memorial (Dec.)	244
New Brunswick Memorial. A. Robert J. C. Stead (Dec.)	244	Tractor Trails in Manitoba. Lyn Harrington (Feb.)	70
Newfoundland. <i>See</i> A Mari Usque Ad Mare (Apr.)	174	Trueman, H. L. Newfoundland's Demonstration Farm (June)	276
Newfoundland—An Historical Sketch. N. V. K. Wylie (Apr.)	148	Turtle Mosaic. Douglas Leechman (Dec.)	274
Newfoundland Pictorial (Apr.)	153	Washburn, Bradford. The Practical Igloo (Dec.)	258
Newfoundland's Demonstration Farm. H. L. Trueman (June)	276	Wealth from the Canadian Shield. B. J. McGuire and H. E. Freeman (May)	XVIII
New Zealand. <i>See</i> Farmer Whalers (Mar.)	144	Whalers, Farmer (Mar.)	198
North, Recent Developments in the Canadian. H. L. Keenleyside (Oct.)	156	Whaling Industry: Economic Aspects, The. W. C. MacKenzie (Mar.)	144
Nova Scotia. <i>See</i> Canals in Cradle and Grave (Oct.)	177	Whaling and Its Antarctic Problems Today. Harry R. Lillie (Mar.)	140
Nova Scotia. <i>See</i> Halifax 1749-1949 (Jan.)	6	Williams, M. Y. Churchill, Manitoba (Sept.)	104
Nova Scotia's Highland Cape Breton. Will R. Bird (Feb.)	78	World Food Supply, The. G. S. H. Barton (May)	122
Odell, N. E. Exploration of the Lloyd George Mountains in British Columbia (Feb.)	48	Wright, Jim. Co-operative Farming in Saskatchewan (Aug.)	228
Oil from the Earth. E. M. Holbrook (Oct.)	134	Wylie, N. V. K. Newfoundland—An Historical Sketch (Apr.)	68
Old Scottish Architecture of Ontario, The. Anson B. Cutts (Nov.)	202		XVIII

EDITOR'S NOTE-BOOK

E. W. Pitt was born and educated in Birmingham, England. After specialized training in architectural history, drawing and design, he spent a number of years studying buildings of architectural and historical importance. He has done valuable work in connection with the surveying and recording of numerous buildings of aesthetic merit in England and the Near East. Mr. Pitt is greatly interested in archaeology and topographical art, has written many articles on architectural subjects, and is represented in the Pilgrim Trust Recording of Britain Scheme by water-colour sketches of East London. * * *

Hedda Morrison was born in Stuttgart and at an early age became interested in photography. She studied at the photographic school in Munich and became a professional photographer, going to Peiping to work in 1933. Mrs. Morrison travelled extensively in China, where she lived for many years, learning to speak Chinese fluently and becoming very much attached to the country and the people. In 1946 she married an Englishman in China, and later went to England. After a short time they returned to the East and for the past two years have lived in Sarawak. * * *

Bradford Washburn, noted mountaineer and explorer, is the Director of the Boston Museum of Science. Mr. Washburn has twice ascended Mount McKinley, the highest peak in North America, and it was on the expedition that he led in 1947 that he became enthusiastic about the usefulness of snowhouses to exploring parties in the frigid areas. * * *

Robert J. C. Stead was born in Ontario but spent many years in Manitoba and Alberta. He knows the Dominion well from coast to coast. Mr. Stead is known to countless readers through his novels and volumes of verse, and through widely circulated official publications of the Departments of Immigration and Colonization, and Mines and Resources. Now retired from official

life, Mr. Stead devotes himself to literary work. * * *

John K. B. Robertson was born in Toronto and educated at Upper Canada College and Queen's University. He did post-graduate work at the University of Toronto, where he received his M.A. During the war Mr. Robertson joined the R.C.A.F., in which he served for five years. He is now on the staff of the National Gallery of Canada, and he lectures in Fine Art at Carleton College, Ottawa. * * *

AMONGST THE NEW BOOKS

Niagara Country

by Lloyd Graham

(Collins, Toronto, \$3.75)

Niagara Country is one of the American Folkways series under the general editorship of Erskine Caldwell and of more interest to Canadian readers because of the district the author is writing about. This part of the continent is one which has seen a good deal of history in the making in the past three hundred years and, now that things have settled down a bit, it has become one of the richest parts of Ontario and New York State.

There has been a great deal of careful research on the part of Mr. Graham and the many exciting anecdotes he includes in his text make the book all the more interesting and readable. Under a less skilled hand it could easily have become a tedious recital of dates and statistics.

It is most unfortunate that there is not a picture in the whole volume, except for a very conventional view of Niagara Falls on the jacket. Nor is there a map, except for the one on the end papers which shows Canada as a vast blank expanse of nothing.

Douglas Leechman



EMBLEM OF EXCELLENCE

IN FINE PRINTING PAPERS

This monogram identifies the products of 40 years of leadership, experience and research. It means supreme quality and top performance. Specify "Provincial"—and make sure your next delivery of fine papers comes guaranteed by this proud label.

Provincial Paper Limited

388 UNIVERSITY AVE., TORONTO 2, ONT.
PHONE ADelaide 1986

CANADA CEMENT BUILDING, MONTREAL 2, QUE.
PHONE MARquette 1129



Good Music for You... and Better Living Too

The Bell Singers, under the direction of Dr. Leslie Bell, have captivated Canada with their fresh interpretations of familiar songs . . . Charles Jordan's rich, romantic baritone is the voice of a man who sings from the heart . . . Howard Cable weaves his special magic of arranging and conducting throughout the programme . . . these are the talented Canadian men and women chosen by Canadian General

Electric to entertain you Sunday evenings on the Dominion Network of the C.B.C.

For fifty-seven years this Company has been building much of the equipment that has made possible the electrical way of living in Canada . . . the fuller, easier, happier life we all enjoy today. There's a friendly dealer in your neighbourhood who will be happy to demonstrate the full line of General Electric products.

TUNE IN EVERY SUNDAY NIGHT AT 8.30, EST — C.B.C. — Dominion Network



CANADIAN GENERAL ELECTRIC COMPANY
LIMITED

ME-649T

Head Office: Toronto — Sales Offices from Coast to Coast



Painted for O'Keefe's by the prominent Canadian artist, R. York Wilson, R.C.A., O.S.A.

This is your Canada Unlimited

Canada at Christmas . . . For young and old alike it's a time of happiness . . . of gay lights, tinsel and good wishes. Christmas is a family occasion . . . when we give thanks for the blessings we know in Canada Unlimited.

Since their first Christmas more than three centuries ago, Canadians have moulded a great nation. The story of this growth is told in *Canada Unlimited*—an illustrated 144-page book published by the O'Keefe Foundation.



Get your copy of this exciting story by sending 25c in cash (no stamps or cheques, please) to "Canada Unlimited", Dept. "L", O'Keefe House, Toronto, Ontario. Please print your name and address clearly. All monies received will be donated to the Canadian Citizenship Council. The aim of this council of service, welfare, labour, fraternal and other organizations is to acquaint new Canadians with the opportunities offered by democratic citizenship in Canada.

O'Keefe's
BREWING COMPANY LIMITED

